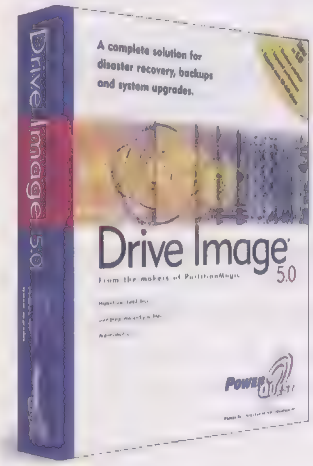
by Kevin Savetz

Drive Image 5.0



Drive Image 5.0
$69.95 ($49.95 upgrade)
PowerQuest
www.powerquest.com

Drive Image lets you create an image of your hard drive—that is, a single file that contains a copy of an entire drive partition or multiple partitions. You can think of a drive image as an exact snapshot of what's stored on your hard drive, which can be useful for creating backups or moving data from one hard drive to another.

The program runs on Windows 95/98/Me/XP/NT/2000 Professional but doesn't support NT Server or other server OSes. It can make images of FAT, FAT32, NTFS, HPFS, and Linux partitions and support hard drives up to 80GB.

Drive Image's simple interface offers three options. The create image function builds a drive image. The restore image function turns that image file back into individual files. The disk-to-disk copy tool clones a partition, copying the contents from one hard drive to another.

There are two levels of compression for creating an image to reduce its size. Even at the higher compression level, the program is fast, copying and verifying 1.65GB of data to a not-so-fast hard drive in just over 6 minutes. You can password-protect a drive image and split an image into multiple files to ensure it will fit onto removable media.

The main Drive Image program is a DOS application. To run it, you must reboot to DOS mode. When it's done, you have to wait for Windows to load again. Although Drive Image is a graphical application that's easy enough to use, all that rebooting wastes time.

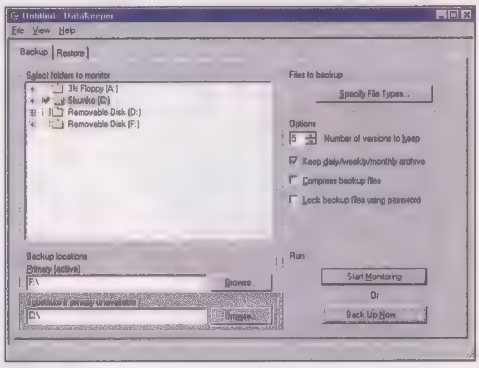
You may have to jump though a few hoops to use Drive Image with removable media. According to the program's users manual, an internal Zip drive should work only after manually editing configuration files. PowerQuest's support Web site provided an easier method that proved effective. However, we couldn't get the program to work at all with an Iomega Peerless USB-connected removable hard drive.

The Drive Image package also includes QuickImage, a Windows front-end that we frankly don't quite understand. You can use QuickImage to define an image you want to create or restore, but after you do so, the program needs to reboot to DOS and launch Drive Image to do its dirty work. To make matters worse, QuickImage's interface isn't intuitive. The graphical DOS interface is easier to use. You can use QuickImage, however, to schedule creation of images. For example, you can set the program to create a backup image every day at 3 a.m. or when you shut down the PC.

After you create a drive image, you can use Image Explorer, a Windows application, to peruse the files stored in that image with a familiar file navigation interface. You can use Image Explorer to view documents buried within a drive image, but you can't run applications stored in the image. Image Explorer makes it easy to restore a file or folder by dragging the item to another drive. You can also drag files between images to copy them.

When you don't need to make an image of a whole partition, but rather just important files, the package includes DataKeeper, a backup program that works in Windows (although it doesn't support XP).

DataKeeper can create a one-time backup or monitor changes to your data files, automatically making backups of everything you save. By default, it won't monitor changes to applications and system files, just your data, which is a nice touch. It can store as many as 99 different versions of each file in case you need to recover an older version. Unfortunately, the program opens its obtrusive window every time you reboot, instead of hiding quietly in the System Tray, which would be a more elegant option.



The two compression levels that Drive Image offers for copying and verifying data are fast.

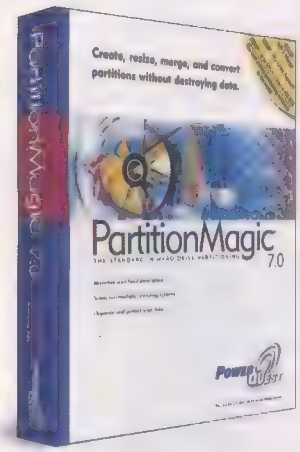
Drive Image does what PowerQuest claims it will do by creating drive images, restoring them, and cloning hard drives. If those are tools you need and you can live with the program's limitations, Drive Image will do the job.

After you create a drive image, you can use Image Explorer, a Windows application, to peruse the files stored in that image with a familiar file navigation interface.

CPU Ranking: 0 = Absolutely Worthless 2.5 = Absolutely Average 5 = Absolutely Perfect

by Kevin Savetz

PartitionMagic 7.0



PartitionMagic 7.0
$69.95 ($49.95 upgrade)
PowerQuest
www.powerquest.com

CPU CPU CPU CPU

PartitionMagic handles FAT, FAT32, NTFS, and Linux partitions. The program supports hard drives of up to 80GB. If fate has burdened you with a larger drive, look elsewhere.

In a world where 80GB hard drives are common and someone, somewhere seems to release a new operating system every week, it makes sense to partition your hard drive.

The problem with basic partitioning utilities, such as FDISK, is that once you create a partition, it's written in stone, and you can't change it without destroying the data it contains. PartitionMagic makes drive partitions more fluid. With it, you can create, copy, move, resize, merge, and split partitions.

The program does these tasks without damaging your data (although the users manual strongly and repeatedly encourages you to make a backup first). For example, you can take a few gigabytes from an oversized Linux partition to make room for a new Windows XP partition without losing a byte of Linux goodness.

PartitionMagic handles FAT, FAT32, NTFS, and Linux partitions. The program supports hard drives of up to 80GB. If fate has burdened you with a larger drive, look elsewhere. The program does a good job of providing powerful features for experts while keeping beginners from shooting themselves in the foot. For example, you can use a wizard to tweak partitions or do it by hand by controlling the tiniest detail of each change. If you do it yourself, the program will remind you of important details such as keeping DOS partitions within the 2GB boot code boundary.

The program's wizards walk you though creating a new partition, resizing a partition, redistributing free space, merging partitions, and copying a partition. You can also split a partition into two, specifying which directories you'll move to the new partition.

Power freaks who like to micromanage every behind-the-scenes detail will be happy. PartitionMagic lets you resize the root directory of a FAT partition, change the cluster size of FAT and FAT32 partitions, and convert partitions between FAT, FAT32, and NTFS file systems. In addition, a "secure erase" feature can obliterate all traces of a partition's contents if you're paranoid that men with badges are coming for your secret files. If tweaks cause drive letters to change, the included DriveMapper utility will change references in application shortcuts, INI files, and Registry entries to the new drive letters.

PartitionMagic is normally run from a local, uncompressed drive with Windows 95/98/Me/NT/2000 Professional, or you can run a DOS version of the program from a floppy to repartition a PC that doesn't have Windows installed. This limited version of the program lacks a few features, such as wizards and splitting partitions, but is good enough to get most jobs done.

In our testing, PartitionMagic had a few problems out of the gate. First, it mistook an IDE Zip drive for a hard drive and claimed the partition table was corrupt. After a call to tech support, the capable technician provided a workaround: Disable the Zip drive in the BIOS when running the program. Inelegant, but it worked. The Zip drive could be re-enabled once the hard drive partitions were just the way I wanted them.

For many users, the primary reason to have multiple partitions is to install multiple OSes. To facilitate switching between OSes, the package includes BootMagic, a boot manager. During setup, BootMagic lets you choose which partitions are bootable, name them, and change the order in which they are listed at boot time. The program supports umpteen versions of Windows, Linux, BeOS, OS/2, FreeDOS, and other OSes.

BootMagic's graphical boot screen is prettier than Linux's LILO. You can choose your OS with a keyboard or mouse (USB mice and keyboards aren't supported, however). You can set a startup delay, but if you don't choose an OS from the list within a few seconds, your default OS will boot. Unfortunately, there's no way to automatically boot the last operating system you chose. Further, BootMagic couldn't decipher the boot sector after we installed Windows XP, so we were stuck with XP's text-based boot menu.

You can also set a boot-time password for a modicum of security, but chances are any kid who reads *2600 Magazine* can figure out how to work around it. A Pro version of PartitionMagic is also available that adds a remote agent feature that lets you repartition a PC over a TCP/IP connection.

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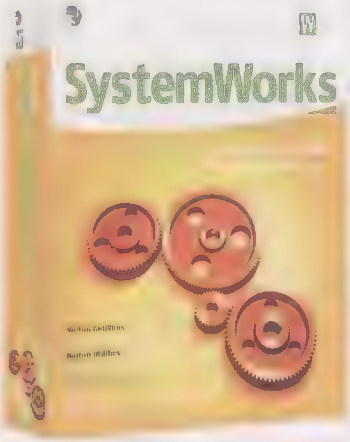
by Kevin Savetz

Norton SystemWorks 2002



Norton SystemWorks 2002
$69.95 ($35.95 upgrade); $99.95 for Professional Edition
Symantec
www.symantec.com

Some PC users are content to leave their computer systems alone. As long as everything on their system is working fine, they are happy. Other users have a compulsion to tweak, optimize, and make sure everything is running at top performance at all times. Norton SystemWorks 2002, a suite of PC diagnostic and repair software, offers a little something for both groups of users.

Some tools in the package are absolutely essential, such as the maintenance and disaster prevention utilities that everyone should have on hand. Other tools are applications that will probably be loved most by those who demand tyrannical rule of their Windows file systems. The overall result is a "kitchen sink" software suite. Ultimately, SystemWorks is useful, but Symantec throws in more gadgetry than even most power users will want.

We will start by looking at the truly essential stuff. Norton AntiVirus is as good as any antivirus program you'll find. It scans your system for existing viruses and monitors e-mail and removable media you insert for new threats. My only gripe is that during a complete system scan, there isn't a progress bar to give you a sense of how long the scan is going to take. The program's LiveUpdate feature does ensure the program's virus definitions are always up-to-date. Updates are free for one year, then available by subscription.

Norton Utilities is a classic, powerful set of tools for hard drive and Windows maintenance. You can use it to give your system a periodic checkup or just keep it around for emergencies. For those emergencies, the UnErase Wizard recovers deleted files. For preventative maintenance, WinDoctor can fix problems plaguing the Windows Registry, and Disk Doctor fixes drive and file problems.

Here's where we creep into the land of obsessive system maintenance. Speed Disk will defragment your hard drive, and the Optimization Wizard purports to optimize the internal structure of the Registry and make efficient use of the swap file size. The Registry management utility tracks changes made to the Windows Registry and INI files, and the Registry Editor lets you take matters into your own hands. The Process Viewer displays details about the programs running on your computer.

The other major parts of the package are Norton CleanSweep and GoBack 3 Personal Edition by Roxio. CleanSweep, the weakest entry in the suite, removes "unneeded" Internet files and uninstalls programs you no longer want. There's really no magic to the Internet cleaner. It simply offers to remove your browser cache, history, cookies, and old plug-ins. The Uninstall Wizard removes applications from your system. Unlike Windows' Add/Remove Programs, CleanSweep can first create a backup that includes your program settings.

GoBack 3, a new addition to SystemWorks, is system recovery software that logs every changed file on your hard drive. If you make a change you later regret, GoBack can revert your system back to a previous state. GoBack provides some peace of mind if you are concerned about your PC crashing or an important file being overwritten. However, there is a price to pay: GoBack slows down operations a bit to log each change and uses about 10% of your hard drive to store its backup data. You will need 200MB of free drive space just to install it.

Getting a grasp of these tools can be overwhelming, but SystemWorks redeems itself with a One-Button Checkup feature, which is an easy way to check for problems and do some system optimization without fussing with a dozen individual tools.

On the other hand, if all those utilities aren't enough for you, SystemWorks Professional Edition might satiate your lust. This version adds WinFax Basic faxing software and Norton Ghost, a utility for creating disk images and cloning hard drives.

SystemWorks works with Windows 98/Me/NT/2000/XP, although not every tool is compatible with every OS. All in all, SystemWorks 2002 is worth the money; it's cheaper than buying Norton Utilities and AntiVirus separately. Use it to keep your system running smoothly, but don't feel you have to use all of its tools to micromanage the workings of your PC. Unless, of course, you enjoy that sort of thing.

The overall result is a "kitchen sink" software suite. Ultimately, SystemWorks is useful, but Symantec throws in more gadgetry than even most power users will want.

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